

REMARKS

Claims 16-19 and 27-36 are pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 16-19 and 27-32 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Japan'132 (Japan 62-122132) in view of Japan' 040 (Japan 57-3040), Firestone (U.S. Patent No. 2,398,701 & U.S. Patent No. 2,625,035) or Wood (U.S. Patent No. 3,237,445). Applicants respectfully traverse these rejections for the reasons set forth below.

Notwithstanding, in order to expedite prosecution of the present application, Applicants have elected to amend independent Claim 27 in order to more fully distinguish the present application. Independent Claim 27 has been amended to recite a wet treatment nozzle that includes, *inter alia*, an ultrasonic cleaner that includes “a first housing, a second housing, and a hollow portion between the first and second housing, an ultrasonic transducer placed on an interior bottom surface of the first housing, and a weight provided on the second housing.” Independent Claim 27 further recites the ultrasonic cleaner including “a flow path along an exterior side of the second housing between the introduction passage and the exhaust passage that guides the treatment liquid to wet treat the object to be treated.” At a minimum, the proposed combination does not teach these elements.

The Examiner primarily relies on Japan'132. As admitted by the Examiner, Japan'132, at a minimum, differs from the recited wet treatment nozzle in that Japan'132 fails to teach or suggest a housing as present claimed. (Office Action, Paragraph 3). In fact, Applicants respectfully contend that Japan'132 teaches away from the wet treatment nozzle as recited,

namely the utilization of an exterior side of the second housing to serve as a flow path. The Examiner asserts that:

[I]t should be noted that it is the examiner's position that given Japan'132 is a 'local' (spot) cleaner..., and with the introduction and exhaust fluid passages, the creation of the meniscus (19) as shown in fig. 3, is obviously pressure controlled, or the meniscus would not exist. Too much positive pressure and the fluid would flow to areas outside the local cleaning spot, too great a negative/exhaust pressure, and the liquid would immediately be exhausted from the local cleaning spot and the cleaning would be ineffective.

Emphasis Added. As noted above, the device taught by Japan'132 requires the formation of a meniscus (i.e., a crescent-shaped body) by the ultrasonic wave transmitting fluid to perform the local spot cleaning (i.e., to clean an insufficiently clean area of a substrate) as detailed above. In other words, Japan'132 teaches away from employing a housing to clean or wet treat a substrate. Specifically, Japan'132 teaches away from using a third exterior side of a housing disposed between an introduction passage and an exhaust passage such that the third exterior side of the housing "guides the treatment liquid to wet treat the object to be treated." Instead, Japan'132 relies on the formation of a defined meniscus of the wave transmitting fluid (i.e., not free-flowing wave transmitting fluid as presently claimed) in order to locally clean a substrate.

Moreover, Applicants respectfully submit that the remaining cited references, namely Japan' 040, either Firestone reference, or Wood fail to remedy the shortcomings of Japan'132. The references are completely silent with regards to the ultrasonic cleaner as claimed. For example, as explained by the Examiner, each of the respective housings of the cited references are relied upon merely "for the purpose of providing a protective arrangement. It is common, in

the art to encase components of devices to prevent damage or injury.” (Office Action, Paragraph 3). Applicants respectfully submit that each of the cited references neither teaches or even contemplates the configuration of the first housing, the second housing, the hollow portion, and the ultrasonic transducer as presently recited. Additionally, none of the cited references employ a third exterior side of the second housing to guide the treatment liquid to the object to be treated.

While Applicants contend that other assertions in the Office Action regarding the combination of the cited references are incorrect, these are moot given the preceding discussion. Thus, for at least the reasons cited, Applicants respectfully assert that independent Claim 27 is patentably distinct over the cited combination of references.

Claims 33, 34, and 36 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Japan’ 040. Applicants respectfully traverse these rejections for the reasons set forth below.

Independent Claim 33 recites wet treatment nozzle that includes “an ultrasonic transducer placed on a bottom surface of the housing.” Emphasis added. At a minimum, Japan’ 040 does not teach this element.

In the rejection, the Examiner asserts that the probe holder 7 of Japan’ 040 discloses the housing as recited by independent Claim 33. Applicants respectfully disagree. Applicants respectfully submit that the Japan’ 040 fails to teach or suggest a housing that supports an ultrasonic transducer. More specifically, Applicants contend that Japan’ 040 fails to disclose a wet treatment nozzle that includes “an ultrasonic transducer placed on a bottom surface of the housing.” Emphasis Added. Instead, Japan’ 040 discloses that “[a] probe 15 is incorporated into a probe holder 7....” In other words, the alleged ultrasonic transducer (i.e., the probe 15) is fitted into the alleged housing (i.e., probe holder 7). In contrast, as mentioned above, independent

Claim 33 recites an ultrasonic transducer disposed on the housing itself. In further support of this interpretation, Applicants direct the Examiner's attention to the primary definition of the term "on" as provided by Merriam-Webster's Collegiate[®] Dictionary (Eleventh Edition) which defines "on" as:

1a: used as a function word to indicate position in contact with and supported by the top surface of.

In other words, the term "on" as recited in independent Claim 33 denotes that the ultrasonic transducer lies on top of a surface of the housing. As discussed previously, Japan' 040 merely provides for the probe 15 to be fitted through the probe holder 7 – not to be placed "on" the probe holder 7. While Applicants contend that other assertions in the Office Action regarding Japan' 040 are incorrect, these are moot given the preceding discussion. Thus, for at least the reasons cited, Applicants respectfully assert that independent Claim 33 is patentably distinct over the cited reference.

CONCLUSION

Based on the above remarks, Applicant respectfully submits that the claims are in condition for allowance. The Examiner is kindly invited to contact the undersigned attorney to expedite allowance.

Respectfully submitted,

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